

The opinion in support of the decision being entered today was ***not*** written for publication and is ***not*** binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MADHAV DATTA,
PETER A. GRUBER, JUDITH M. RUBINO,
CARLOS J. SAMBUCETTI and GEORGE F. WALKER

Appeal No. 2003-1331
Application 09/301,889

ON BRIEF

Before WARREN, LIEBERMAN and PAWLIKOWSKI, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain the grounds of rejections advanced on appeal: claims 1 and 23 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Millican et al. (Millican) and Lin et al. (Lin); claim 5 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Millican and Lin, as applied to appealed claims 1 and 23, and further in combination with Mis et al.; and claims 8 through 11 under 35 U.S.C. § 103(a) as being

unpatentable over the combination of Millican and Lin, as applied to appealed claims 1 and 23, and further in combination with Andricacos et al.^{1,2}

In order to establish a *prima facie* case of obviousness, the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to the claimed invention as a whole, including each and every limitation of the claims, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics, Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988).

The dispositive issue with respect to all grounds of rejection in this appeal involves the interpretation to be made of the language of appealed independent claims 1 and 23. Appellants submit that the claimed method "flattens solder bumps," and thus does not encompass the method of Lin (brief, page 7; see also pages 3 and 5). The examiner contends that the scope of the claims "is not so limited," but does not state how the claims are to be interpreted in light of the specification in order to encompass the method of Lin (answer, page 8; see also pages 4-5).

We find that, when considered in light of the written description in the specification as interpreted by one of ordinary skill in this art, *see, e.g., In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997), *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989), the plain language of appealed independent claim 1, on which appealed claims 5 and 8 through 11 depend, specifies a method for testing IC chips with probe needles on flat solder bumps comprising at least the steps of, *inter alia*, first forming solder bumps, which have a

¹ Claims 2, 6, 7, 12 through 20, 22 and 24 are also of record and have been withdrawn from consideration by the examiner under 37 CFR § 1.142(b). Claims 1, 2, 5 through 20 and 22 through 24 are all of the pending claims. A correct copy of appealed claims 1, 5, 8 through 11 and 23 is in the appendix to the brief.

² Answer, pages 4-7.

definite, sustained shape, *and then* substantially flattening the top surface of each of such formed solder bumps with a platen. Appealed independent claim 23 contains similar language.

Thus, we agree with appellants that Lin, in using flat disk **50** to force conductive paste **30**, which can be a solder paste, into openings **20** on top of bond pads **12** as well as to remove excess paste **30** as shown in Lin **FIG 4** (col. 3, lines 61-67, and col. 4, line 25), does not first form a solder bump and then flatten that solder bump with a platen, that is, form a flat surface on a solder bump, but rather forces solder paste into a specific space to form a solder bump with a flat surface. Compare the solder bumps prepared by the Lin methods as illustrated by Lin **FIGs. 4** and **7**, with the solder bumps modified by the claimed method as illustrated in the specification **Figs.**

Accordingly, because the applied prior art would not have led one of ordinary skill in this art to the claimed method as a whole, we reverse all of the grounds of rejection.

The examiner's decision is reversed.

Reversed

CHARLES F. WARREN)	
Administrative Patent Judge)	
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PAUL LIEBERMAN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
BEVERLY A. PAWLIKOWSKI)	
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